



## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

#### 50 CFR Part 223

[Docket No. 230504-0120]

RIN 0648-BH85

### Endangered and Threatened Species: Designation of Nonessential Experimental Populations of Chinook Salmon Upstream of Shasta Dam, Authorization for Release, and Adoption of Limited Protective Regulations under the Endangered Species Act Sections 10(j) and 4(s)

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Proposed rule; notification of availability of a draft environmental assessment; request for comments.

**SUMMARY:** We, NMFS, propose a rule to designate and authorize the release of nonessential experimental populations (NEPs or experimental populations) of Sacramento River (SR) winter-run Chinook salmon (*Oncorhynchus tshawytscha*) and Central Valley (CV) spring-run Chinook salmon (*O. tshawytscha*) in the McCloud and Upper Sacramento Rivers upstream of Shasta Dam (the NEP Area), California, and, under the Endangered Species Act (ESA), establish a limited set of take exceptions for the experimental populations. Successful reintroduction of populations within the species' historical ranges would contribute to viability and further conservation of these species. The issuance of limited protective regulations for the conservation of these species would provide regulatory assurances to the people in the Upper Sacramento River and McCloud River watersheds. This proposed rule also announces the availability for

comment of a draft environmental assessment (EA) analyzing the environmental impacts of this proposed experimental population designation and the associated take exceptions.

**DATES:** Comments on this proposed rule and EA, must be received no later than [*insert date 30 days after date of publication in the FEDERAL REGISTER*].

**ADDRESSES:** You may submit comments on this document, identified by NOAA-NMFS-2018-0052, by the following method:

- *Electronic Submission:* Submit all electronic public comments via the Federal e-Rulemaking Portal. Go to <https://www.regulations.gov> and enter NOAA-NMFS-2018-0052 in the Search box. Click on the “Comment” icon, complete the required fields, and enter or attach your comments.

*Instructions:* Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered by NMFS. All comments received are part of the public record and will generally be posted to <http://www.regulations.gov> without change. All personal identifying information (*e.g.*, name, address, etc.), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. NMFS will accept anonymous comments (enter “N/A” in the required fields if you wish to remain anonymous). Attachments to electronic comments will be accepted in Microsoft Word, Excel, or Adobe PDF file formats only. You may access a copy of the draft EA by the following:

- Visit NMFS’ National Environmental Policy Act (NEPA) web site at:

[https://www.westcoast.fisheries.noaa.gov/publications/nepa/nepa\\_documents.html](https://www.westcoast.fisheries.noaa.gov/publications/nepa/nepa_documents.html).

**FOR FURTHER INFORMATION CONTACT:** Steve Edmondson, [steve.edmondson@noaa.gov](mailto:steve.edmondson@noaa.gov) or by phone at (916) 930-3600, or by mail at National Marine Fisheries Service, 650 Capitol Mall, Suite 5-100, Sacramento, CA 95814.

## **SUPPLEMENTARY INFORMATION:**

### **Background Information Relevant to Experimental Population Designation**

NMFS listed the SR winter-run Chinook salmon Evolutionarily Significant Unit (ESU<sup>1</sup>) as endangered under the ESA, 16 U.S.C. 1531 *et seq.*, on January 4, 1994 (59 FR 440) and reaffirmed this status on June 28, 2005 (70 FR 37159), and 5-year reviews announced on August 15, 2011 (76 FR 50448), April 14, 2014 (79 FR 20802), and May 26, 2016 (81 FR 33468). Section 9 of the ESA prohibits take of the endangered SR winter-run Chinook salmon. The State of California listed SR winter-run Chinook salmon as endangered in 1989 under the California Endangered Species Act (CESA). The federally listed ESU is composed of a single population that includes all naturally spawned SR winter-run Chinook salmon in the Sacramento River and its tributaries (70 FR 37160, June 28, 2005, as well as SR winter-run Chinook salmon that are part of the conservation hatchery program at the Livingston Stone National Fish Hatchery (NFH) (R. Jones, NMFS, letter to Chris Yates, NMFS, September 28, 2015, regarding inclusion of Livingston Stone NFH fish in the ESU; 81 FR 33468, May 26, 2016). Designated critical habitat of SR winter-run Chinook salmon (58 FR 33212, June 16, 1993) includes: (1) the Sacramento River from Keswick Dam, Shasta County (River Mile (RM) 302) to Chipps Island (RM 0) at the westward margin of the delta; (2) all waters from Chipps Island westward to Carquinez Bridge, including Honker Bay, Grizzly Bay, Suisun Bay, and Carquinez Strait; (3) all waters of San Pablo Bay westward of the Carquinez Bridge; and (4) those waters north of San Francisco-Oakland Bay Bridge.

NMFS listed the CV spring-run Chinook salmon ESU as threatened under the ESA on September 16, 1999 (64 FR 50394), and reaffirmed this status in a final rule on June 28, 2005 (70 FR 37160), and 5-year reviews announced on August 15, 2011 (76 FR 50447) and May 26, 2016 (81 FR 33468). The listed ESU of CV spring-run Chinook salmon currently includes all naturally spawned populations of spring-run Chinook

salmon in the Sacramento River and its tributaries, as well as the spring-run Chinook salmon from the Feather River Hatchery (FRH) spring-run Chinook salmon program. On January 9, 2002 (67 FR 1116), NMFS issued protective regulations under section 4(d) of the ESA for CV spring-run Chinook salmon that apply the take prohibitions of section 9(a)(1) of the ESA except for listed exceptions (see 50 CFR 223.203). Critical habitat has been designated for CV spring-run Chinook salmon (70 FR 52488, September 2, 2005), and includes most of the occupied riverine habitat within their extant range. CV spring-run Chinook salmon are also listed as a threatened species by the State of California under CESA, California Fish and Game Code, Division 3, Chapter 1.5.

In 2014, we adopted a final recovery plan for the SR winter-run and CV spring-run Chinook salmon ESUs (79 FR 42504, July 22, 2014). The Central Valley Recovery Plan identifies re-establishing populations of SR winter-run and CV spring-run Chinook salmon above impassable barriers to unoccupied historical habitats as an important recovery action (NMFS 2014). More specifically, the Central Valley Recovery Plan explains that re-establishing populations above impassable barriers, such as Shasta Dam, would aid in recovery of the ESUs by increasing abundance, spatial structure and diversity and by reducing the risk of extinction to the ESUs.

NMFS is proposing this rule to (a) designate and authorize the release of NEPs of SR winter-run and CV spring-run Chinook salmon pursuant to ESA section 10(j) in the McCloud and Upper Sacramento Rivers upstream of Shasta Dam, and (b) establish take prohibitions for the NEPs and exceptions for particular activities.

The NEP Area extends from Shasta Dam up to Pit 7 Dam on the Pit River, McCloud Dam on the McCloud River, and Box Canyon Dam on the upper Sacramento River. All other tributaries flowing into Shasta Reservoir up to the ridge line, including tributaries below Pit 7 Dam, McCloud Dam, and Box Canyon Dam, up to the ridge line would be included in the NEP Area. All other areas above Pit 7 Dam on the Pit River,

McCloud Dam on the McCloud River, and Box Canyon Dam on the upper Sacramento River would not be part of the NEP Area. The NEP Area extends up to the ridgelines to account for watershed processes and ends at the aforementioned dams because these dams lack fish passage facilities. The NEP Area is part of the species' historical range. The NEPs are all SR winter-run and CV spring-run Chinook salmon, including fish released or propagated, naturally or artificially, within the NEP Area.

*Statutory and Regulatory Framework for Experimental Population Designations*

Section 10(j) of the ESA (16 U.S.C. 1539(j)) allows the Secretary of Commerce to authorize the release of any population of a listed species outside their current range if the release “furthers their conservation.” An experimental population is a population that is geographically separate from nonexperimental populations of the same species.

Before authorizing the release of an experimental population, section 10(j)(2)(B) requires that the Secretary must “by regulation identify the population and determine, on the basis of the best available information, whether or not the population is essential to the continued existence of the listed species.

An experimental population is treated as a threatened species, except that non-essential populations do not receive the benefit of certain protections normally applicable to threatened species (ESA section 10(j)(2)(C)). Below we discuss the impact of treating experimental populations as threatened species and of exceptions that apply to experimental populations.

For endangered species, section 9 of the ESA prohibits take of those species. For a threatened species, ESA section 9 does not specifically prohibit take of those species, but the ESA instead authorizes NMFS to adopt regulations under section 4(d) to prohibit take or that it deems necessary and advisable for species conservation. If designated, the proposed experimental populations of SR winter-run and CV spring-run Chinook salmon must generally be treated as threatened species. Therefore, we propose to issue tailored

protective regulations under ESA section 4(d) for the proposed experimental populations of SR winter-run and CV spring-run Chinook salmon to identify take prohibitions necessary to provide for the conservation of the species with exceptions for particular activities.

Section 7 of the ESA provides for Federal interagency cooperation and consultation on Federal agency actions. Section 7(a)(1) directs all Federal agencies, in consultation with NMFS as applicable depending on the species, to use their authorities to further the purposes of the ESA by carrying out programs for the conservation of listed species. Section 7(a)(2) requires all Federal agencies, in consultation with NMFS as applicable depending on the species, to ensure any action they authorize, fund or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Section 7 applies equally to endangered and threatened species.

Although ESA section 10(j) provides that an experimental population must generally be treated as a threatened species, for the purposes of ESA section 7, if the experimental population is determined to be a NEP, section 10(j)(C)(i) requires that we treat the experimental population as a species proposed to be listed, rather than a species that is listed (except when it occurs within a National Wildlife Refuge or National Park, in which case it is treated as listed). Section 7(a)(4) of the ESA requires Federal agencies to confer (rather than consult under ESA section 7(a)(2)) with NMFS on actions likely to jeopardize the continued existence of a species proposed to be listed. The results of a conference are advisory recommendations, if any, on ways to minimize or avoid adverse effects rather than mandatory terms and conditions under ESA section 7(a)(2) consultations (compare 50 CFR 402.10(c) with 50 CFR 402.14(i)(1)(iv)).

NMFS has designated four experimental populations (78 FR 2893, January 15, 2013; 78 FR 79622, December 31, 2013; 79 FR 40004, July 11, 2014; 87 FR 79808,

December 28, 2022) and promulgated regulations, codified at 50 CFR part 222, subpart E, to implement section 10(j) of the ESA (81 FR 33416, May 26, 2016). NMFS' implementing regulations include the following provisions:

The provision at 50 CFR 222.501(b) defines an “essential experimental population” as an experimental population that, if lost, the survival of the species in the wild would likely be substantially reduced. All other experimental populations are classified as nonessential.

The provision at 50 CFR 222.502(b) provides that, before authorizing the release of an experimental population, the Secretary must find by regulation that such release will further the conservation of the species. In addition, 50 CFR 222.502(b) provides that, in making such a finding, the Secretary shall utilize the best scientific and commercial data available to consider:

- Any possible adverse effects on extant populations of a species as a result of removal of individuals, eggs, or propagules for introduction elsewhere;
- The likelihood that any such experimental population will become established and survive in the foreseeable future;
- The effects that establishment of an experimental population will have on the recovery of the species; and
- The extent to which the introduced population may be affected by existing or anticipated Federal or state actions or private activities within or adjacent to the experimental population area.

The provision at 50 CFR 222.502(c) describes 4 components that must be provided in any NMFS regulations designating an experimental population under ESA section 10(j):

- Appropriate means to identify the experimental population, including, but not limited to, its actual or proposed location; actual or anticipated migration;

number of specimens released or to be released; and other criteria appropriate to identify the experimental population(s);

- A finding, based solely on the best scientific and commercial data available, and the supporting factual basis, on whether the experimental population is, or is not, essential to the continued existence of the species in the wild;
- Management restrictions, protective measures, or other special management concerns of that population, as appropriate, which may include, but are not limited to, measures to isolate and/or to contain the experimental population designated in the regulation from nonexperimental populations and protective regulations established pursuant to section 4(d) of the ESA; and
- A process for periodic review and evaluation of the success or failure of the release and the effect of the release on the conservation and recovery of the species.

In addition, as described above, ESA section 10(j)(1) defines an “experimental population” as any population authorized for release but only when, and at such times as, the population is wholly separate geographically from the non-experimental populations of the same species. Accordingly, we must establish that there are such times and places when the experimental population is wholly geographically separate. Similarly, the statute requires that we identify the experimental population; the legislative history indicates that the purpose of this requirement is to provide notice as to which populations of listed species are experimental (see Joint Explanatory Statement of the Committee of Conference, H.R. Conf. Rep. No. 97–835, at 34 (1982)).

We discuss in more detail below how we considered each of these elements.

### *Status of the Species*

Life history and the historical population trends of SR winter-run and CV spring-run Chinook salmon are summarized by Healy (1991), USFWS (1995), Yoshiyama *et al.*,



(1998), Yoshiyama *et al.*, (2001), and Moyle (2002). Section 4(f) of the ESA requires the Secretary of Commerce to develop recovery plans for all listed species unless the Secretary determines that such a plan will not promote the conservation of a listed species. Prior to developing the Central Valley Recovery Plan (NMFS 2014), we assembled a team of scientists from Federal and State agencies, consulting firms, non-profit organizations and academia. This group, known as the Central Valley Technical Recovery Team (CVTRT), was tasked with identifying population structure and recommending recovery criteria (also known as delisting criteria) for ESA-listed salmon and steelhead in the Sacramento River and San Joaquin Rivers and their tributaries. The CVTRT recommended biological viability criteria at the ESU level and population level (Lindley *et al.*, 2007) for recovery planning consideration. The CVTRT identified the current risk level of each population based on the gap between recent abundance and productivity and the desired recovery goals. The CVTRT concluded that the greatest risk facing the ESUs resulted from the loss of historical diversity following the construction of major dams that blocked access to historical spawning and rearing habitat (Lindley *et al.*, 2007).

The CVTRT also recommended spatial structure and diversity metrics for each population (Lindley *et al.*, 2004). Spatial structure refers to the geographic distribution of a population and the processes that affect the distribution. Populations with restricted distribution and few spawning areas are at a higher risk of extinction from catastrophic environmental events (*e.g.*, a volcanic eruption) than are populations with more widespread and complex spatial structure. A population with complex spatial structure typically has multiple spawning areas which allows the expression of diverse life history characteristics. Diversity is the combination of genetic and phenotypic characteristics within and between populations (McElhany *et al.*, 2000). Phenotypic diversity allows more diverse populations to use a wider array of environments and protects populations

against short-term temporal and spatial environmental changes. Genotypic diversity, on the other hand, provides populations with the ability to survive long-term changes in the environment by providing genetic variations that may prove successful under different situations. The combination of phenotypic and genotypic diversity, expressed in a natural setting, provides populations with the ability to utilize the full range of habitat and environmental conditions and to have the resiliency to survive and adapt to long-term changes in the environment.

In 2016, NMFS completed a periodic review as required by ESA section 4(c)(2)(A) and on May 26, 2016 (81 FR 33468) announced the SR winter-run Chinook salmon ESU would remain listed as endangered. In 2023, NMFS completed the 2022 review of SR winter-run Chinook salmon that indicates the biological status of the SR winter-run Chinook salmon ESU has declined since the 2016 viability assessment (Williams et al. 2016), with the single spawning population on the mainstem Sacramento River now at a high risk of extinction (SWFSC 2022). Updated information indicates an increased extinction risk due to the larger influence of the hatchery broodstock and low numbers of natural-origin returns in two consecutive years (SWFSC 2022). Analysis identified that the viability of the ESU would be improved by re- establishing this species in their historical spawning and rearing habitats through reintroduction efforts in Battle Creek and upstream from Shasta Reservoir.

In 2016, NMFS completed a periodic review as required by the ESA section 4(c)(2)(A), and concluded that the CV spring-run Chinook salmon ESU should remain listed as threatened (81 FR 33468, May 26, 2016). As part of the periodic review, NMFS' Southwest Fisheries Science Center conducted an analysis (Johnson and Lindley 2016) that indicated the extant independent populations of the CV spring-run Chinook salmon ESU remained at a moderate to low extinction risk. The NMFS Southwest Fisheries Science Center's recent viability analysis (2022) noted some improvements in the

viability of the ESU, particularly with the increased spatial diversity of the dependent Battle Creek and Clear Creek populations. However, the analysis also identified as key threats recent catastrophic declines of many of the extant populations, high pre-spawn mortality during the 2012- 2015 drought in California, uncertain juvenile survival as a result of drought and ocean conditions, as well as straying of CV spring-run Chinook salmon from the Feather River Fish Hatchery.

#### *Analysis of the Statutory Requirements*

1. Will authorizing release of experimental populations further the conservation of these species?

Section 3(3) of the ESA, 16 U.S.C. 1532(3), defines “conservation” as “the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this [Act] are no longer necessary.” We discuss in more detail below each of the factors we considered in determining whether authorizing release of experimental populations in the NEP Area would further the conservation of SR winter-run and CV spring-run Chinook salmon.

Under 50 CFR 222.502(b), NMFS must consider several factors in finding whether authorizing release of an experimental population will further the conservation of the species, including any possible adverse effects on extant populations of the species as a result of removal of individuals for introduction elsewhere; the likelihood that the experimental population will become established and survive in the foreseeable future; the effects that establishment of the experimental population will have on the recovery of the species; and the extent to which the experimental populations may be affected by existing or anticipated Federal or state actions or private activities within or adjacent to the experimental population area.

Regarding the likelihood that reintroduction efforts will be successful in the foreseeable future, an important question is: what are the most appropriate sources of

broodstock to establish the experimental population, and are the sources available?

Reintroduction efforts have the best chance for success when the donor population has life-history characteristics compatible with the anticipated environmental conditions of the habitat into which fish will be reintroduced (Araki *et al.*, 2008). Populations found in watersheds closest to the NEP Area are most likely to have adaptive traits that will lead to a successful reintroduction. Therefore, only SR winter-run and CV spring-run Chinook salmon populations found in Central Valley would be used in establishing the experimental populations in the NEP Area.

We have preliminarily identified donor sources for reintroduction into the NEP Area as SR winter-run from Livingston Stone NFH and CV spring-run Chinook salmon produced from the FRH. These fish are the geographically closest donor sources that could be used with minimal impact to the wild populations for reintroduction into the NEP Area. NMFS, in consultation with the California Department of Fish and Wildlife (CDFW), may later consider diversifying the donor stocks from other nearby streams if those populations can sustain removal of fish. Any collection of Chinook salmon would be subject to a Hatchery and Genetic Management Plan (HGMP) in relation to a hatchery source and approval of a permit under ESA section 10(a)(1)(A), which includes analysis under NEPA and ESA section 7.

Use of donor stocks from Livingston Stone NFH and the FRH for the initial phases of a reintroduction program will minimize the number of individuals needed from existing populations. Supplementation to the donor stock, if necessary, would be dependent upon genetic diversity needs and the extent of adverse effects to other populations. It is anticipated that over time, the Livingston Stone NFH and FRH would produce juveniles and adults in sufficient numbers to enable the return of a sufficient number of adults to establish a self-sustaining population in the NEP Area. Once self-sustaining populations are established, it is anticipated that contributions of SR winter-

run Chinook salmon from Livingston Stone NFH and CV spring-run Chinook salmon from FRH would be phased out.

We also consider the suitability of habitat available to the experimental populations. In 2014, the U.S. Bureau of Reclamation initiated a habitat assessment of the NEP Area and found conditions were suitable for Chinook salmon spawning, adult holding, and juvenile rearing. Habitat conditions in the Upper Sacramento and McCloud Rivers are described in the draft EA.

In addition, there are Federal and state laws and regulations that will help ensure the establishment and survival of the experimental populations by protecting aquatic and riparian habitat in the NEP Area. Section 404 of the Clean Water Act (CWA), 33 U.S.C. 1344, establishes a program to regulate the discharge of dredged or fill material into waters of the United States, which generally requires avoidance, minimization, and mitigation for potential adverse effects of dredge and fill activities within the nation's waterways. Under CWA section 401, 33 U.S.C. 1341, a Federal agency may not issue a permit or license to conduct any activity that may result in any discharge into waters of the United States unless a state or authorized tribe where the discharge would originate issues a section 401 water quality certification verifying compliance with existing water quality requirements or waives the certification requirement. In addition, construction and operational storm water runoff is subject to restrictions under CWA section 402, 33 U.S.C. 1342, which establishes the National Pollutant Discharge Elimination System permit program, and state water quality laws.

The Federal Energy Regulatory Commission (FERC), pursuant to the Federal Power Act (FPA) and the U.S. Department of Energy Organization Act, is authorized to issue licenses for up to 50 years for the construction and operation of non-Federal hydroelectric developments subject to its jurisdiction. The FPA authorizes NMFS to

issue mandatory prescriptions for fish passage and recommend other measures to protect salmon, steelhead, and other anadromous fish.

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) (16 U.S.C. 1801 *et seq.*) is the principal law governing marine fisheries conservation and management in the United States. Chinook salmon Essential Fish Habitat (EFH) is identified and described to include all water bodies currently or historically occupied by Chinook salmon in California. Under the MSA, Federal agencies are required to determine whether a Federal action they authorize, fund, or undertake may adversely affect EFH (16 U.S.C. 1855(b)). Chinook salmon EFH does not occur in the NEP Area.

At the state level, the California Fish and Game Code (CFGF) Fish and Wildlife Protection and Conservation provisions (CFGF section 1600, *et seq.*), the CESA (CFGF section 2050, *et seq.*), and the California Environmental Quality Act (CEQA) (Public Resources Code section 21000, *et seq.*) set forth criteria for the incorporation of avoidance, minimization, and feasible mitigation measures for on-going activities as well as for individual projects. The CFGF Fish and Wildlife Protection and Conservation provisions were enacted to provide conservation for the state's fish and wildlife resources and include requirements to protect riparian habitat resources on the bed, channel, or bank of streams and other waterways. The CESA prohibits the taking of listed species except as otherwise provided in State law. Under the CEQA, no public agency shall approve or carry out a project without identifying all feasible mitigation measures necessary to reduce impacts to a less than significant level, and public agencies shall incorporate such measures absent overriding consideration.

Regarding the effects that establishment of experimental populations will have on the recovery of the species, the Central Valley Recovery Plan (NMFS 2014) characterizes the NEP Area as having the potential to support viable populations of Chinook salmon. The Central Valley Recovery Plan establishes a framework for reintroduction of Chinook

salmon and steelhead to historical habitats upstream of dams. The framework recommends that a reintroduction program should include feasibility studies, habitat evaluations, fish passage design studies, and a pilot reintroduction phase prior to implementation of the long-term reintroduction program. In addition, the Central Valley Recovery Plan contains specific management strategies for recovering SR winter-run and CV spring-run Chinook salmon that include securing existing populations and reintroducing these species into historically occupied habitats above rim dams in the Central Valley of California (NMFS 2014). The Central Valley Recovery Plan concludes, and we continue to agree, that establishing experimental populations in the NEP Area that persist into the foreseeable future is expected to reduce extinction risk from natural and anthropogenic factors by increasing abundance, productivity, spatial structure, and diversity within California's Central Valley. These expected improvements in the overall viability of SR winter-run and CV spring-run Chinook salmon, in addition to other actions being implemented throughout the Central Valley, which are described next, will contribute to SR winter-run and CV spring-run Chinook salmon near-term viability and recovery.

Across the Central Valley, a number of actions are being undertaken to improve habitat quality and quantity for SR winter-run and CV spring-run Chinook salmon. Collectively, implementation of these will result in many projects that will improve habitat conditions. The San Joaquin River Restoration Program will improve passage survival and spatial distribution for CV spring-run Chinook salmon in the San Joaquin River corridor. The Battle Creek Salmon and Steelhead Restoration Project will improve passage and rearing survival, spawning opportunities and spatial distribution in Battle Creek. The Central Valley Flood Protection Plan (DWR 2011) will improve juvenile rearing conditions during outmigration by creating and improving access to high quality floodplain habitats.

Implementation of the action items identified in NMFS current 2022 5-year review of the listing factors and in the Species in the Spotlight 2021-2025 Priority Action Plan for SR winter-run Chinook salmon (NMFS 2021) include improving management of Shasta Reservoir cold-water storage to reduce water temperatures and provide flows to improve SR winter-run Chinook salmon productivity; restoring Battle Creek habitats and reintroducing SR winter-run Chinook salmon to historical spawning areas; reintroducing SR winter-run Chinook salmon into historical habitats above Shasta Dam; improving Yolo Bypass fish habitat and passage to increase juvenile survival and rearing opportunities; improving management of winter and early spring Delta conditions to improve juvenile survival; and continuing collaboration on science and fostering partnerships to build greater capacity to address recovery challenges.

Climate change is expected to exacerbate existing habitat stressors in California's Central Valley and increase threats to Chinook salmon and steelhead by reducing the quantity and quality of freshwater habitat (Lindley *et al.*, 2007). Significant contraction of thermally suitable habitat is predicted, and as cold-water sources contract, access to cooler headwater streams is expected to become increasingly important for CV spring-run Chinook salmon in the Central Valley (Crozier *et al.*, 2018). For this reason and other reasons described above, we anticipate reintroduction of SR winter-run and CV spring-run Chinook salmon into headwater streams upstream of Shasta Dam will contribute to their conservation and recovery.

Existing or anticipated Federal or state actions or private activities within or adjacent to the NEP Area may affect the experimental populations. The NEP Area is sparsely populated and ongoing state, Federal and local activities include forest management, limited mining, highways and road maintenance, residential and municipal development, grazing, tourism and recreation. These activities will likely continue into the future and are anticipated to have minor impacts to SR winter-run and CV spring-run



Chinook salmon in the NEP Area and adjacent areas. Potential impacts from these and other activities are further minimized through application of the aforementioned state and Federal regulations. Dams and water diversions in the NEP Area currently limit fish populations in some parts of the NEP Area. NMFS anticipates releases of SR winter-run and CV spring-run Chinook salmon will be specifically targeted into riverine reaches with abundant high-quality habitats that are not blocked by barriers to fish passage, or impaired by high water temperatures or inadequate flows. The habitat improvement actions called for in the Central Valley Recovery Plan, as well as compliance with existing Federal, state, and local laws, statutes, and regulations, including those mentioned above, are expected to contribute to the establishment and survival of the experimental populations in the NEP Area in the foreseeable future. Although the donor sources for reintroduction are anticipated to include hatchery-origin individuals from the Livingston Stone NFH and FRH, based on the factors discussed above, we conclude it is probable that self-sustaining experimental populations of SR winter-run and CV spring-run Chinook salmon will become established and survive in the NEP Area. Furthermore, we conclude that self-sustaining experimental populations of genetically compatible individuals will likely further the conservation of these species, as discussed above.

## 2. Identification of the Experimental Populations and Geographic Separation from Nonexperimental Populations of the Same Species

ESA section 10(j)(2)(B) requires that we identify experimental populations by regulation. ESA section 10(j)(1) also provides that a population is considered an experimental population only when, and at such times as, it is wholly separate geographically from the nonexperimental population of the same species. NMFS proposes that the NEP Area would extend upstream from Shasta Dam in the McCloud and Upper Sacramento Rivers as described above. Under this proposed rule, experimental populations would be identified as SR winter-run and CV spring-run Chinook salmon

populations when geographically located anywhere in the NEP Area. Reintroduced SR winter-run and CV spring-run Chinook salmon would only be part of the experimental populations when they are present in the NEP Area, and would not be part of the experimental populations when they are outside the NEP Area, even if they originated within the NEP Area. When reintroduced juvenile SR winter-run and CV spring-run Chinook salmon pass downstream of Shasta and Keswick Dams into the Sacramento River, and when they migrate further downstream to the Sacramento River Delta and the Pacific Ocean, they would no longer be geographically separated from other extant SR winter-run and CV spring-run Chinook salmon populations, and thus the “experimental population” designations would not apply, unless and until they return as adults and re-enter the NEP Area.

The proposed NEP Area provides the requisite level of geographic separation because SR winter-run and CV spring-run Chinook salmon are currently extirpated from this area due to the presence of Shasta and Keswick Dams, which block their upstream migration. Straying of fish from other Chinook populations into the NEP Area is not possible due to the presence of these dams. As a result, the geographic description of the extant SR winter-run and CV spring-run Chinook salmon ESUs does not include the NEP Area.

NMFS anticipates that SR winter-run and CV spring-run Chinook salmon used for the initial stages of a reintroduction program would be marked, for example, with specific fin clips and/or coded-wire tags to evaluate stray rates and allow for brood stock collection of returning adults that originated from the experimental populations. Any marking of individuals of the experimental populations, such as clips or tags, would be for the purpose of evaluating the effectiveness of a near-term and long-term fish passage program, and would not be for the purpose of identifying fish from the NEP Area other than for brood stock collection of returning adults. As discussed above, the experimental

populations are identified based on the geographic location of the fish. Indeed, if the reintroductions are successful as expected, and fish begin reproducing naturally, their offspring would not be distinguishable from fish from other Chinook salmon populations. Outside of the NEP Area, *e.g.*, downstream of Shasta and Keswick Dams in the Sacramento River, or in the ocean, any such unmarked fish (juveniles and adults alike) would not be considered members of the experimental populations. They would be considered part of the SR winter-run Chinook salmon ESU or the CV spring-run Chinook salmon ESU currently listed under the ESA. Likewise, any fish that were marked for reintroduction in the NEP Area would not be considered part of the experimental populations once they left the NEP Area; rather, they would be considered part of the ESUs currently listed under the ESA.

3. Is the experimental population essential to the continued existence of the species?

As discussed above, ESA section 10(j)(2)(B) requires the Secretary to determine whether experimental populations would be “essential to the continued existence” of the listed species. The statute does not elaborate on how this determination is to be made. However, as noted above, Congress gave some further attention to the term when it described an essential experimental population as one whose loss “would be likely to appreciably reduce the likelihood of survival of that species in the wild.” (Joint Explanatory Statement, *supra*, at 34). NMFS regulations incorporated this concept into its definition of an essential experimental population at 50 CFR 222.501(b), which is an experimental population that, if lost, the survival of the species in the wild would likely be substantially reduced.

In determining whether the experimental populations of SR winter-run and CV spring-run Chinook salmon are essential, we used the best available information as required by ESA section 10(j)(2)(B). Furthermore, we considered the geographic location

of the experimental populations in relation to other populations of SR winter-run and CV spring-run Chinook salmon, and the likelihood of survival of these populations without the existence of the experimental populations.

The SR winter-run Chinook salmon ESU consists of a single extant population in the Sacramento River downstream of Shasta and Keswick Dams. The CV spring-run Chinook salmon ESU includes four independent populations and several dependent or establishing populations. Given current protections and restoration efforts, these populations are persisting without the presence of a population in the NEP Area. It is expected that the experimental populations will exist as separate populations from those in the Sacramento River basin and will not be essential to the survival of those populations. Based on these considerations, we conclude that the loss of experimental populations of SR winter-run or CV spring-run Chinook salmon in the NEP Area is not likely to appreciably reduce the likelihood of the survival of these species in the wild. Accordingly, NMFS is proposing to designate the experimental populations as nonessential. Under section 10(j)(2)(C)(ii) of the ESA we cannot designate critical habitat for nonessential experimental populations.

*Additional Management Restrictions, Protective Measures, and Other Special Management Considerations*

As indicated above, ESA section 10(j)(2)(C) requires that experimental populations be treated as threatened species, except that, for nonessential experimental populations, certain portions of ESA section 7 do not apply and critical habitat cannot be designated. Congress intended that the Secretary would issue regulations deemed necessary and advisable to provide for the conservation of experimental populations just as he or she does under ESA section 4(d) for any threatened species (Joint Explanatory Statement, *supra*, at 34). In addition, when amending the ESA to add section 10(j), Congress specifically intended to provide broad discretion and flexibility to the Secretary

in managing experimental populations so as to reduce opposition to releasing listed species outside their current range (H.R. Rep. No. 567, 97th Cong. 2d Sess. 34 (1982)). Therefore, we propose to exercise the authority to issue protective regulations under ESA section 4(d) for the proposed experimental populations of SR winter-run and CV spring-run Chinook salmon to identify take prohibitions necessary to provide for the conservation of these species and otherwise provide assurances to the people of the Upper Sacramento and McCloud River watersheds.

The ESA defines “take” to mean harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct (16 U.S.C. 1532(19)). Concurrent with the proposed ESA section 10(j) experimental population designation, we propose protective regulations under ESA section 4(d) for the experimental populations that would prohibit take of SR winter-run and CV spring-run Chinook salmon in the NEP Area that are part of the experimental populations, except in the following circumstances:

1. Any take by authorized governmental entity personnel acting in compliance with 50 CFR 223.203(b)(3) to aid a sick, injured or stranded fish; dispose of a dead fish; or salvage a dead fish which may be useful for scientific study;
2. Any take that is incidental<sup>1</sup> to an otherwise lawful activity and is unintentional, not due to negligent conduct. Otherwise lawful activities include, but are not limited to, recreation, forestry, water management, agriculture, power production, mining, transportation management, rural development, or livestock grazing, when such activities are in full compliance with all applicable laws and regulations; and
3. Any take that is pursuant to a permit issued by NMFS under section 10 of the ESA (16 U.S.C. 1539) and regulations in 50 CFR part 222 applicable to such a

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<sup>1</sup> Incidental take refers to takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant. 50 CFR 402.02

permit.

#### *Process for Periodic Review*

Evaluation of the success of experimental populations will require new monitoring programs developed specifically for this purpose. To gauge the success of the program, NMFS anticipates that it will be necessary to monitor in the NEP Area for fish passage efficiency, spawning success, adult and smolt injury and mortality rates, juvenile salmon collection efficiencies, competition with resident species, predation, and disease among other things. We anticipate the status of reintroduced populations of SR winter-run and CV spring run Chinook salmon in the NEP Area would be evaluated during NMFS' five-year review process under ESA 4(c)(2). During the 5-year review, NMFS may evaluate whether the current designation under ESA section 10(j) as nonessential experimental populations is still warranted.

#### *Proposed Experimental Population Findings*

Based on the best available scientific information, we have determined that the designations and authorization for the release of NEPs of SR winter-run and CV spring-run Chinook salmon in the NEP Area upstream of Shasta Dam will further the conservation of SR winter-run and CV spring-run Chinook salmon. SR winter-run Chinook salmon used to initiate the reintroduction are anticipated to come from Livingston Stone NFH. CV spring-run Chinook salmon used to initiate the reintroduction are anticipated to come from the FRH. The collection of donor stock will be permitted only after issuance of permits under section 10(a)(1)(A) of the ESA, which includes analysis under NEPA and ESA section 7. The experimental population fish are expected to remain geographically separate from fish in other populations of the SR winter-run and CV spring-run Chinook salmon ESUs during the life stages in which they remain in, or are returned to, the NEP Area. At all times when members of the experimental populations are downstream of Shasta and Keswick Dams, the experimental population

designations will not apply. Establishing experimental populations of SR winter-run and CV spring-run Chinook salmon in the NEP Area would likely contribute to the viability of the ESUs. Reintroduction is a recommended recovery action in the Central Valley Recovery Plan (NMFS 2014). Designation of SR winter-run and CV spring-run Chinook salmon in the NEP Area as nonessential experimental populations would ensure that their reintroduction does not impose undue regulatory restrictions on landowners and others because this proposed rule would apply only limited take prohibitions as compared to the prohibitions that typically apply to SR winter-run and CV spring-run Chinook salmon. In particular, this proposed rule expressly provides an exception for take of NEP fish in the NEP Area provided that the take is incidental to otherwise lawful activities and is unintentional, rather than due to negligent conduct.

We further determine, based on the best available scientific information, that the proposed experimental populations would not be essential to the continued existence of the SR winter-run Chinook salmon ESU or the CV spring-run Chinook salmon ESU, because absence of the experimental populations would not be likely to appreciably reduce the likelihood of the survival of the ESUs in the wild. However, as described above, the experimental populations are expected to contribute to the recovery of the SR winter-run and CV spring-run Chinook salmon ESUs if reintroduction is successful. We therefore propose that the experimental populations would be nonessential experimental populations.

### **Public Comment**

We want the final rule to be as effective and accurate as possible, and the final EA to evaluate the potential issues and reasonable range of alternatives. Therefore, we invite the public, state, tribal, and government agencies, the scientific community, environmental groups, industry, local landowners, and all interested parties to provide comments on the proposed rule and draft EA (see **ADDRESSES** section above). We

request that submitted comments be relevant to the proposed designation of the experimental populations in the NEP Area. Comments should be as specific as possible, provide relevant information or suggested changes, the basis for the suggested changes, and any additional supporting information where appropriate. For example, comments should tell us the numbers or titles of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections in which lists or tables would be useful, etc.

Prior to issuing a final rule, we will take into consideration the comments and supporting materials received. The final rule may differ from the proposed rule based on this information and more recent data that becomes available. We are interested in all public comments, but are specifically interested in obtaining feedback on:

- (1) The best source of ESA-listed fish for establishing experimental populations of SR winter-run and CV spring-run Chinook salmon in the NEP Area and the scientific basis for such comments.
- (2) The proposed NEP Area (geographical scope) for the experimental population.
- (3) The extent to which the experimental populations would be affected by current or future Federal, State, Tribal, or private actions within or adjacent to the experimental population area.
- (4) Any necessary management restrictions, protective measures, or other management measures that we may not have considered.
- (5) The likelihood that the experimental populations will become established in the NEP Area.
- (6) Whether the proposed experimental populations are essential or nonessential.



(7) Whether the proposed experimental population designations and release will further the conservation of the species and whether we have used the best available scientific information in making this determination.

#### *Information Quality Act and Peer Review*

Pursuant to the Information Quality Act (Section 515 of Pub. L. 106–554), the Office of Management and Budget (OMB) issued a Final Information Quality Bulletin for Peer Review, which was published in the **Federal Register** on January 14, 2005 (70 FR 2664). The Bulletin established minimum peer review standards, a transparent process for public disclosure of peer review planning, and opportunities for public participation with regard to certain types of information disseminated by the Federal Government. The peer review requirements of the OMB Bulletin apply to influential or highly influential scientific information disseminated on or after June 16, 2005. There are no documents supporting this proposed rule that meet these criteria.

#### **Classification**

##### *Executive Order 12866*

This proposed rule has been determined to be not significant under Executive Order 12866.

##### *Regulatory Flexibility Act*

The Chief Counsel for Regulation of the Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration that this proposed rule, if adopted, would not have a significant economic impact on a substantial number of small entities.

This proposal would designate and authorize the release of nonessential experimental populations of SR winter-run and CV spring-run salmon in the NEP Area. While in the NEP Area, the experimental populations would be protected from some types of take, but this proposed action would impose no prohibitions on the take of the

experimental population fish that is incidental to otherwise lawful activity and unintentional and not due to negligent conduct. The effect of this proposed action would not increase the regulatory burdens associated with the ESA on affected entities, including small entities, to conduct otherwise lawful activities as a result of reintroduction of SR winter-run and CV spring-run Chinook salmon to the NEP Area. If this proposed action is adopted, the area affected by this rule includes the entire NEP Area. Land ownership includes Federal lands and private lands with the primary uses being recreation, forestry, water management, power production, mining, transportation management, rural and residential development, tourism and recreational fishing, and livestock grazing. A substantial portion of both Shasta and Siskiyou Counties are under the management of Federal or state resource management agencies. Small entities make up a portion of owners using the land for these uses and this proposed rule, if implemented, may impact those uses for all entities, including small entities.

However, this proposed rule would apply only limited take prohibitions as compared with the prohibitions that typically currently apply to listed SR winter-run and CV spring-run Chinook salmon; in particular, this proposed rule expressly provides an exception for the take of experimental population fish in the NEP Area provided that the take is incidental to otherwise lawful activity and unintentional and not due to negligent conduct. Based on the nonessential experimental population designations under this proposed rule, there would only be the requirement under ESA section 7 (other than section (a)(1) requiring Federal agencies, in consultation with NMFS as applicable depending on the species, to use their authorities to further the purposes of the ESA by carrying out programs for the conservation of listed species) for Federal agencies to confer with NMFS with respect to effects of agency actions on the experimental populations. This requirement to confer with NMFS is not as burdensome on Federal agencies as the requirement to consult, and no critical habitat could be designated for the

experimental populations. Due to the minimal regulatory overlay provided by the nonessential experimental population designations, we do not expect this rule to have any significant effect on recreation, forestry, water management, power production, mining, transportation management, rural development, tourism and recreational fishing, livestock grazing or other lawful activities within the NEP Area. As such, we do not expect this rule to have any significant effect on any entities, including small entities that engage in these activities in the NEP area.

For the reasons described above, this proposed rule would not have a significant economic effect on a substantial number of small entities. Accordingly, no initial regulatory flexibility analysis is required, and none has been prepared.

#### *Executive Order 12630*

In accordance with Executive Order 12630, the proposed rule does not have significant takings implications. A takings implication assessment is not required because this proposed rule: (1) would not effectively compel a property owner to have the government physically invade their property, and (2) would not deny all economically beneficial or productive use of the land or aquatic resources. This proposed rule would substantially advance a legitimate government interest (conservation and recovery of a listed fish species) and would not present a barrier to all reasonable and expected beneficial use of private property.

#### *Executive Order 13132*

In accordance with Executive Order 13132, we have determined that this proposed rule does not have federalism implications as that term is defined in Executive Order 13132.

#### *Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)*

OMB regulations at 5 CFR 1320, which implement provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), require that Federal agencies obtain approval

from OMB before collecting information from the public. A Federal agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. This proposed rule does not include any new collections of information that require approval by OMB under the Paperwork Reduction Act.

*National Environmental Policy Act*

In compliance with all provisions of the National Environmental Policy Act of 1969 (NEPA), we have analyzed the impact on the human environment and considered a reasonable range of alternatives for this proposed rule. We have prepared a draft EA on this proposed action and have made it available for public inspection (see **ADDRESSES** section above). All appropriate NEPA documents will be finalized before this rule is finalized.

*Government-to-Government Relationship with Tribes (Executive Order 13175)*

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, outlines the responsibilities of the Federal Government in matters affecting tribal interests. If we issue a regulation with tribal implications (defined as having a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes) we must consult with those governments or the Federal Government must provide funds necessary to pay direct compliance costs incurred by tribal governments.

There are no tribally owned or managed lands in the NEP Area. As part of NMFS's obligations under the National Historic Preservation Act, NMFS inquired with federally recognized and non-federally recognized tribes with potential interest in the NEP Area to inform them of the proposed rule and solicit information on cultural resources eligible for listing on the National Register of Historic Places (letters dated Feb.

5, July 14, and July 27, 2016, from Maria Rea, Central Valley Office Supervisor, NMFS).

NMFS invites tribes to meet with us to have detailed discussions that could lead to government-to-government consultation meetings with tribal governments. We will continue to coordinate with potentially affected tribes as we gather public comment on this proposed rule and consider next steps.

#### *References Cited*

A complete list of all references cited in this proposed rule is available upon request from the National Marine Fisheries Service office (see **FOR FURTHER INFORMATION CONTACT**).

#### **List of Subjects in 50 CFR Part 223**

Endangered and threatened species.

Dated: May 5, 2023.

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Samuel D. Rauch, III,

Deputy Assistant Administrator for Regulatory Programs,

National Marine Fisheries Service.

For the reasons set out in the preamble, NMFS proposes to amend 50 CFR part 223 as follows:

#### **PART 223--THREATENED MARINE AND ANADROMOUS SPECIES**

1. The authority citation for part 223 continues to read as follows:

**Authority:** 16 U.S.C. 1531-1543; subpart B, § 223.201-202 also issued under 16 U.S.C. 1361 *et seq.*; 16 U.S.C. 5503(d) for § 223.206(d)(9).

2. In § 223.102, amend the table in paragraph (e) under the heading for “Fishes” by adding the entries for “Salmon, Chinook (Central Valley spring-run ESU-XN Shasta)” and

“Salmon, Chinook (Sacramento River winter-run ESU-XN Shasta)” after the entry for “Salmon, Chinook ((Central Valley spring-run ESU-XN Yuba)” and before the entry for “Salmon, Chinook (Lower Columbia River ESU)”

to read as follows:

**§ 223.102 Enumeration of threatened marine and anadromous species.**

\* \* \* \* \*

(e) \* \* \*

Species <sup>1</sup>			Citation(s) for listing determinations(s)	Critical habitat	ESA rules
Common name	Scientific name	Description of listed entity			
* * * * *					
FISHES					
* * * * *					
Salmon, Chinook (Central Valley spring-run ESU-XNShasta).	<i>Oncorhynchus tshawytscha</i>	Central Valley spring-run Chinook salmon only when, and at such times as, they are found in the NEP Area (from Shasta Dam up to Pit 7 Dam on the Pit River, McCloud Dam on the McCloud River, and Box Canyon Dam on the upper Sacramento River. All other tributaries flowing into Shasta Reservoir up to the ridge line, including tributaries below Pit 7 Dam, McCloud Dam, and Box Canyon Dam, up to the ridge line would be included in the NEP Area).	[ <b>Federal Register</b> citation and date when published as a final rule].	NA	
Salmon, Chinook (Sacramento winter-run ESU-XNShasta).	<i>Oncorhynchus tshawytscha</i>	Sacramento winter-run Chinook salmon only when, and at such times as, they are found in the NEP Area (from Shasta Dam up to Pit 7 Dam on the Pit River, McCloud Dam on the McCloud River, and Box Canyon Dam on the upper Sacramento River. All other tributaries flowing into Shasta Reservoir up to the ridge line, including tributaries below Pit 7 Dam, McCloud Dam, and Box Canyon Dam, up to the ridge line would be included in the NEP Area).	[ <b>Federal Register</b> citation and date when published as a final rule].	NA	

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<sup>1</sup> Species includes taxonomic species, subspecies, distinct population segments (DPSs) (for a policy statement, see 61 FR 4722, February 7, 1996), and evolutionarily significant units (ESUs) (for a policy statement, see 56 FR 58612, November 20, 1991).

\* \* \* \* \*

3. In § 223.301, add paragraph (e) to read as follows:

**§ 223.301 Special rules—marine and anadromous fishes.**

\* \* \* \* \*

(e) *McCloud and Upper Sacramento Rivers Sacramento River winter-run and Central Valley spring-run Chinook Salmon Experimental Populations (Oncorhynchus tshawytscha)*. (1) *Status of McCloud and Upper Sacramento Rivers Sacramento River winter-run and Central Valley spring-run Chinook salmon under the ESA*. The McCloud and Upper Sacramento Rivers Sacramento River winter-run and Central Valley spring-run Chinook salmon populations identified in paragraph (e)(2) of this section are designated as nonessential experimental populations under section 10(j) of the ESA and shall be treated as a “threatened species” pursuant to 16 U.S.C. 1539(j)(2)(C).

(2) *McCloud and Upper Sacramento Rivers Sacramento River winter-run and Central Valley spring-run Chinook Salmon Experimental Populations*. All Sacramento River winter-run and Central Valley spring-run Chinook salmon within the experimental population area in the McCloud and Upper Sacramento Rivers upstream of Shasta Dam, as defined here, are considered part of the McCloud and Upper Sacramento Rivers Sacramento River winter-run and Central Valley spring-run Chinook salmon experimental populations. The NEP Area extends from Shasta Dam up to Pit 7 Dam on the Pit River, McCloud Dam on the McCloud River, and Box Canyon Dam on the upper Sacramento River. All other tributaries flowing into Shasta Reservoir up to the ridge line, including tributaries below Pit 7 Dam, McCloud Dam, and Box Canyon Dam, up to the ridge line are included in the NEP Area. All other areas above Pit 7 Dam on the Pit River,

McCloud Dam on the McCloud River, and Box Canyon Dam on the upper Sacramento River are not part of the NEP Area. The NEP Area extends up to the ridgelines to account for watershed processes and ends at the aforementioned dams because these dams lack fish passage facilities. The NEP Area is part of the species' historical range. The NEPs are all SR winter-run and CV spring-run Chinook salmon, including fish released or propagated, naturally or artificially, within the NEP Area.

(3) Prohibitions. Except as expressly allowed in paragraph (e)(4) of this section, all prohibitions of section 9(a)(1) of the ESA (16 U.S.C. 1538 (a)(1)) apply to fish that are part of the McCloud and Upper Sacramento Rivers Sacramento River winter-run and Central Valley spring-run Chinook salmon nonessential experimental populations identified in paragraph (e)(2) of this section.

(4) Exceptions to the Application of Section 9 Take Prohibitions in the Experimental Population Area. The following forms of take in the experimental population area identified in paragraph (e)(2) of this section are not prohibited by this section:

(i) Any taking of experimental populations of Sacramento River winter-run or Central Valley spring-run Chinook salmon by authorized governmental entity personnel acting in compliance with 50 CFR 223.203(b)(3) to aid a sick, injured or stranded fish; dispose of a dead fish; or salvage a dead fish which may be useful for scientific study.

(ii) Any taking of experimental populations of Sacramento River winter-run or Central Valley spring-run Chinook salmon that is unintentional, not due to negligent conduct, and incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.

(iii) Any taking of experimental populations of Sacramento River winter-run or Central Valley spring-run Chinook salmon pursuant to a permit issued by NMFS under



section 10 of the ESA (16 U.S.C. 1539) and regulations in part 222 of this chapter  
applicable to such a permit.

\* \* \* \* \*

[FR Doc. 2023-09967 Filed: 5/11/2023 8:45 am; Publication Date: 5/12/2023]